

CITY COUNCIL AGENDA ITEM COVER MEMO

Agenda Item Number: _____

Meeting Type: Regular

Meeting Date: Jan 22, 2015

Action Requested By: Engineering

Agenda Type: Resolution

Subject Matter:

Modification No. 1 to Agreement with Garver, L.L.C.

Exact Wording for the Agenda:

Resolution authorizing the Mayor to modify the agreement with Garver, L.L.C. for Engineering Design Services for Martin Road, Phase I (from Old Jim Williams Road to Zierdt Road), Project No. 65-10-RD06, by Modification No. 1

10-236

Note: If amendment, Please state title and number of the original

Item to be considered for: _____

Unanimous Consent Required: _____

Briefly state why the action is required; why it is recommended; what council action will provide, allow and accomplish and; any other information that might be helpful.

This modification is for geotechnical design services that were not included in the original contract. Total modification amount of \$140,134.42. Account No. 23-6500-0813-8143

Associated Cost: \$140,134.42

Budgeted Item: _____

MAYOR RECOMMENDS OR CONCURS: _____

Department Head: Kathy M. [Signature]

Date: 1-15-15

ROUTING SLIP CONTRACTS AND AGREEMENTS

Originating Department: Engineering

Council Meeting Date: 1/22/2015

Department Contact: Lynn Majors

Phone # 256-427-5201

Contract or Agreement: Modification No. 1

Document Name: Garver- Martin Road Project No. 65-10-RD06

City Obligation Amount: \$140,134.42

Total Project Budget: \$757,783.42

Uncommitted Account Balance: 0

Account Number: 23-6500-0813-8143

Procurement Agreements

<u>Not Applicable</u>	<u>Not Applicable</u>
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Grant-Funded Agreements

<u>Not Applicable</u>	Grant Name:
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Department	Signature	Date
1) Originating	<i>[Signature]</i>	<u>1-15-15</u>
2) Legal	<i>[Signature]</i>	<u>1-15-15</u>
3) Finance <i>[Signature]</i>	<i>[Signature]</i>	<u>1/20/15</u>
4) Originating		
5) Copy Distribution		
a. Mayor's office (1 copies)		
b. Clerk-Treasurer (Original & 2 copies)		

RESOLUTION NO. 15-

BE IT RESOLVED by the City Council of the City of Huntsville, Alabama, that the Mayor be, and is hereby authorized, in Huntsville, Alabama, on behalf of the City of Huntsville, a municipal corporation in the State of Alabama to enter into Modification No. 1 to the Agreement with Garver, L.L.C., adopted and approved on the 25th day of March, 2010, by the City Council of the City of Huntsville, Alabama by Resolution No. 10-236, as attached hereto.

BE IT FURTHER RESOLVED that the total contract amount be and hereby is modified from SIX HUNDRED SEVENTEEN THOUSAND SIX HUNDRED FORTY-NINE AND NO/100 DOLLARS (\$617,649.00) to SEVEN HUNDRED FIFTY-SEVEN THOUSAND SEVEN HUNDRED EIGHTY-THREE AND .42/100 DOLLARS (\$757,783.42), including this Modification No. 1, an increase of ONE HUNDRED FORTY THOUSAND ONE HUNDRED THIRTY-FOUR AND .42/100 DOLLARS (\$140,134.42). Agreement is substantially in words and figures similar to that document attached hereto and identified as "Modification No. 1 to Agreement between City of Huntsville and Garver, L.L.C. for Engineering Design Services for Martin Road, Phase I (from Old Jim Williams Road to Zierdt Road), Project No. 65-10-RD06, as adopted by Resolution No. 10-236 of March 25, 2010" consisting of a total of three (3) pages plus thirty-three (33) additional pages consisting of Attachment "A", and the date of January 22, 2015, appearing on the margin of the first page, together with the signature of the President or President Pro Tem of the City Council, and an executed copy of said document being permanently kept on file in the Office of the City Clerk of the City of Huntsville, Alabama.

ADOPTED this the 22nd day of January, 2015.

President of the City Council of
the City of Huntsville, Alabama

APPROVED this the 22nd day of January, 2015.

Mayor of the City of Huntsville,
Alabama

STATE OF ALABAMA)
COUNTY OF MADISON)

Modification No. 1 to Agreement between
the City of Huntsville and Garver, L.L.C.
for Engineering Design Services for Martin
Road, Phase I (from Old Jim Williams Road
to Zierdt Road), Project No. 65-10-RD06, as
adopted by Resolution No. 10-236 of March
25, 2010

THIS IS MODIFICATION NO. 1 TO AN AGREEMENT entered in on the 25th day of March, 2010, in the amount of SIX HUNDRED SEVENTEEN THOUSAND SIX HUNDRED FORTY-NINE AND NO/100 DOLLARS (\$617,649.00). The original Agreement is hereby amended by Modification No. 1 dated January 22, 2015, in the amount of ONE HUNDRED FORTY THOUSAND ONE HUNDRED THIRTY-FOUR AND .42/100 DOLLARS (\$140,134.42) for the revised contract amount of SEVEN HUNDRED FIFTY-SEVEN THOUSAND SEVEN HUNDRED EIGHTY-THREE AND .42/100 DOLLARS (\$757,783.42), by and between the City of Huntsville, Alabama, a municipal corporation in the State of Alabama (Owner) and Garver, L.L.C., (ENGINEER).

WITNESSETH

WHEREAS, the firm identified as the ENGINEER to the Agreement dated March 25, 2010, has proposed a change, identified as Attachment "A" to the Original Agreement. This modification delineates a change to: modify for geotechnical design services that were not included in the original contract.

WHEREAS, the Owner desires that the contract drawings be altered to be consistent with Attachment "A" hereto.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, the Owner and the ENGINEER agree to the following modifications to the agreement:

1. Garver, LLC will provide for geotechnical design services at a time and materials cost not to exceed ONE HUNDRED FORTY THOUSAND ONE HUNDRED THIRTY-FOUR AND .42/100 DOLLARS (\$140,134.42).
2. Item #1 shall be performed in accordance with the original agreement dated March 25, 2010, and approved by the City Council by Resolution No. 10-236, and as described in the letter from Scott Leach to Kathy Martin, dated October 1, 2014, shown as Attachment "A".

President of the City Council of the City of
Huntsville, AL

Date: January 22, 2015

3. The terms of this contract modification and the execution thereof is not in any way to be viewed as a waiver on the part of the Owner of any of its rights pursuant to the Contract.
4. All other terms and conditions remain unchanged.

IN WITNESS WHEREOF, the parties have entered their hands and seals and attest to the same with the signature of the Mayor being the official act of the said municipality in accordance with his duly constituted authority.

THE CITY OF HUNTSVILLE, ALABAMA,
a municipal corporation

By: _____
Tommy Battle
Its Mayor

ATTEST:

Charles E. Hagood
City Clerk-Treasurer

STATE OF ALABAMA)
COUNTY OF MADISON)

I, the undersigned, a notary public in and for said County, in said State, hereby certify that Tommy Battle and Charles E. Hagood, whose names as Mayor and City Clerk-Treasurer of the City of Huntsville, a municipal corporation, are signed to the foregoing instrument, and who are known to me, acknowledged before me on this day that, being informed of the contents of the instrument, they, in their capacity as such officers, executed the same with full authority for and as the act of said corporation on the day the same bears day.

GIVEN under my hand and official seal this the _____ day of _____ 2015.

Notary Public
My Commission Expires: _____

ENGINEER: GARVER, L.L.C.

By: _____

ATTEST:

STATE OF ALABAMA)
COUNTY OF MADISON)

I, the undersigned, a notary public in and for said County, in said State, hereby certify that Jerry D. McCarley, as Vice President, is signed to the foregoing instrument, and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, in his capacity as such officer, executed the same with full authority for and as the act of said Corporation on the day the same bears day.

GIVEN under my hand and official seal this the _____ day of _____ 2015.

Notary Public
My Commission Expires: _____

ATTACHMENT "A"



5125A Research Drive
Huntsville, AL 35805

TEL 256.534.5512
FAX 256.534.5544

www.GarverUSA.com



October 1, 2014

Ms. Kathy Martin, P.E.
Director of Engineering
City of Huntsville
320 Fountain Circle
Huntsville, AL 35801

Attn: Mr. Alan Clements, PE/PLS

**RE: Proposal for Contract Modification #1
 Geotechnical Investigations and Surveying
 ALDOT Project No. STPAA-PE11(907)
 ATRIP Project No. ACAA60160-ATRP(001)
 Martin Road Additional Lanes from
 Old Jim Williams Road to Zierdt Road
 In the City of Huntsville, Madison County, AL**

Mr. Clements:

We appreciate the opportunity to submit this proposal for Contract Modification #1 on the above referenced project. Attached hereto are two (2) copies of the following:

- Appendix A – Scope of Services
- Appendix B – Man-Day Estimate and Fee Proposal
- Appendix C – Sub-Consultant Proposal
- Appendix D – Hourly Rate Schedule and Proposed Project Personnel
- Figures 1 – Project Vicinity Map

Terracon, Inc. is our sub-consultant responsible for geotechnical investigations on this project. Their scope of services and fee proposal are included in Appendix C. Terracon's proposed Hourly, Not-To-Exceed fee is \$109,373.18. Garver's proposed fee for work described in Appendix A is \$30,761.24 which includes \$5,468.66 as 5% sub-consultant administration expense. The Total Hourly, Not-To-Exceed Fee proposed for this work is \$140,134.42. The contract completion date for this project should be December 31, 2015. Our Hourly Rate Schedule (attached as Appendix D) is valid thru December 31, 2015.

We are ready to begin work immediately following City Council approval of our contract. If you have any questions or need any additional information regarding this project or our proposal, please let me know. We look forward to continue working with you and the City of Huntsville on this very important project.

Sincerely,
Garver, LLC

Scott C. Leach, PE
Senior Project Manager

**Scope of Services for Contract Modification #1
ALDOT Project STPAA-PE11(907); ATRIP Project ACAA60160-ATRP(001)
Martin Road Additional Lanes
In the City of Huntsville, Madison County, AL**

FIELD SURVEYING:

Additional development has occurred within the project limits since 2010 when original surveys were performed. The additional surveying services to be provided by Garver (CONSULTANT) are as follows:

1. CONSULTANT will contact property owners between Old Jim Williams Road and Zierdt Road to notify them of Geotechnical Investigations and request Right-of-Entry prior to beginning work. CONSULTANT will make reasonable effort to contact property owners verbally and follow-up with a confirmation letter documenting the contact. CONSULTANT will use a standard letter format and furnish copies of the property owner contact letters to the CITY upon request.
2. CONSULTANT will attempt to recover original survey control points; then locate and field stake the 54 bore holes identified in Terracon's proposal (see Appendix C.) CONSULTANT will collect Northing, Easting and Elevation of bore holes to include on the Soil Boring Logs and Soil Profiles.
3. CONSULTANT will perform supplemental data gathering required to update topographic data collected from the original 2010 surveys. Data will be obtained through X, Y, and Z coordinates of each point to define additional topography. Data gathered for the DTM will be sufficient to extract cross sections on 50 foot intervals, plot construction limits and determine quantities.

ROADWAY CONSTRUCTION CONTRACT PLANS:

Additional roadway construction contract plans services to be provided by CONSULTANT are as follows:

- Revise the contract plans assembly to reflect current ALDOT requirements for Erosion Control Plans. This includes pre-construction erosion control plans, erosion control plans for each phase of construction, post-construction erosion control plans, as well as the preparation of a Construction Best Management Practices Plan (CBMPP.)
- Revise the contract plans assembly to include the design of an Emergency Traffic Signal at the City of Huntsville Fire & Rescue Station No. 11.

10/1/2014

Alabama Department of Transportation

1:08 PM

Project No.	STPAA-PE11(907) and ACAA60160-ATRP(001)
County	Madison
Description	Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd
Scope of Work	Grade, Drain, Base, Pave, Bridge & Traffic Signal
Project Length	1.45 Miles
C.O.H. Project Engineer	Alan Clements
Consultant	Garver, LLC (Geotechnical Subconsultant Terracon)
GRAND TOTAL OF FEE PROPOSAL	
Field Surveys Update & Bore Hole Stakeout	\$10,202
Roadway Plans & Geotechnical Investigations	\$129,932
GRAND TOTAL FEE	\$140,134

LABOR RATES		Effective Time Period	December 31, 2015
Classification	Hourly Rate	Assigned Personnel	
Project Manager	\$176.00	Scott Leach	
Engineer	\$123.00	Andy Dinges, Patra Crenshaw, Zach Turner	
Environmental			
Engineering Technician/CADD	\$87.00	Kendall Brown, Amanda Mason	
Environmental Technician			
Clerical	\$47.00	Peggy Bridgeman, Cheryl South	
PLS	\$111.00	Wade Carpenter	
Survey Crew (2-Man GPS)	\$178.00	Mark Storey, Stephen Few, Randall Byrd	

**Certification of Out-of-Pocket Expenses:

If Out-of-Pocket Expenses are included in this proposal, we hereby certify that these costs are not included in the Combined Overhead Rate and are typically invoiced to all clients as a direct job cost.



Signed

OCTOBER 1, 2014

Date



Position/Title

Project No. STPAA-PE11(907) and ACA60160-ATRP(001) County Madison Description Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd Scope of Work Grade, Drain, Base, Pave, Bridge & Traffic Signal Project Length 1.45 Miles					
Consultant Garver, LLC (Geotechnical Subconsultant Terracon)					
FIELD SURVEY					
Based on a 2 Man GPS Crew					
Task A: Mobilization and Basic Control Survey					
A-1 Mobilize/Demobilize					
A-2 Contact Property Owners	0.25	1.00	0.50		1.00
	0.10		0.25		
Task A Totals	0.35	1.00	0.75		1.00
Task B: Bore Hole Stakeout & Update Previous Field Surveys					
B-1 Field Stake Locations of 54 Bore Holes for Terracon	0.25	2.00	0.50		
B-2 Obtain Additional Topographic Data / Update Previous Field Surveys	0.20	2.00	1.00		
Task B Totals	0.45	4.00	1.50		
Task C: N/A					
C-1 N/A					
Task C Totals	0.00	0.00	0.00		
TOTALS	0.80	5.00	2.25		1.00

Project No. STPAA-PE11(907) and ACAA60160-ATRP(001)			
County Madison			
Description Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd			
Scope of Work Grade, Drain, Base, Pave, Bridge & Traffic Signal			
Project Length 1.45 Miles			
Consultant Garver, LLC (Geotechnical Subconsultant Terracon)			
Fee Proposal (Field Survey)			
PERSONNEL COST			
	Man-days	Daily Rate @ 8hrs/Day	
Project Manager (10% of PLS)	0.08	\$ 1,408.00	\$ 112.64
PLS	0.80	\$ 888.00	\$ 710.40
Survey Crew (see man-day sheet)	5.00	\$ 1,424.00	\$ 7,120.00
Engineering Technician/CADD	2.25	\$ 696.00	\$ 1,566.00
Clerical	1.00	\$ 376.00	\$ 376.00
Sub-Total Labor			\$ 9,885.04
Out-of-Pocket Expenses**			\$ 317.00
Sub-Total			\$ 10,202.04
SUB-CONSULTANTS (attach man-day & fee FROM each sub-consultant; show total fee for each here)			
			\$ -
			\$ -
			\$ -
Subconsultant Administration Expense (5%)			\$ -
Sub-Total			\$ -
TOTAL FEE			\$ 10,202.04

**See Grand Total Fee sheet

Project No. STPAA-PE11(907) and ACAA60160-ATRP(001)
County Madison
Description Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd
Scope of Work Grade, Drain, Base, Pave, Bridge & Traffic Signal
Project Length 1.45 Miles

Consultant Garver, LLC (Geotechnical Subconsultant Terracon)

Out-of-pocket Expenses (Field Survey)

TRAVEL COST

Mileage Cost	Trips	Miles/Trip	\$/Mile	Total
	0	0	\$0.560	\$ -
	0	0	\$0.560	\$ -
	0	0	\$0.560	\$ -
	0	0	\$0.560	\$ -
Total Mileage Cost				\$ -

Subsistence Cost	Days	# People	\$/Day	Total
Travel allowance (6 hour trips)	0	0	\$11.25	\$ -
Travel allowance (12 hour trips - meal provided by others)	0	0	\$20.00	\$ -
Travel allowance (12 hour trips)	0	0	\$30.00	\$ -
Travel allowance (overnight)***	0	0	\$75.00	\$ -
				\$ -
Total Subsistence Cost				\$ -
Total Travel Cost				\$ -

PRINTING / REPRODUCTION COST

Type of printing/reproduction	# of Sets	Sheets/Set	Total Sheets	Cost/Sheet	Total
Plan / Profile Sheets for Survey Update	2	20	40	\$ 0.22	\$ 8.80
Bore Hole Layout Sheets	2	10	20	\$ 0.22	\$ 4.40
Updated Survey Information, Field Books, Data, etc	2	150	300	\$ 0.22	\$ 66.00
Property Owner Contact Letters	2	40	80	\$ 0.11	\$ 8.80
Miscellaneous In-House Printing	1	200	200	\$ 0.22	\$ 44.00
Total Printing/Reproduction Cost					\$ 132.00

Communication Cost (telephone, fax, etc.)	Total
	\$ 30.00

Postage Cost (overnight, stamps, etc.)	Total
	\$ 30.00

Other (provide description on next line)	Total
Stakes, Hubs, Paint, Flagging, etc.	\$ 125.00

Total Out-of-pocket Expenses \$ 317.00

Comments:

10% Mark-up has been added to all of the expenses listed above

***You must have ALDOT approval for ANY overnight trips of less than 100 miles.

Project Number STPAA-PE11(907) and ACAA60160-ATRP(001) County Madison Description Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd Scope of work Grade, Drain, Base, Pave, Bridge & Traffic Signal Length 1.45 miles Consultant Garver, LLC (Geotechnical Subconsultant Terracon)					
ROADWAY PLANS SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
TITLE SHEET	0.00				
INDEX SHEET	0.00				
GEOMETRIC LAYOUT/SURVEY CONTROL	0.00				
PROJECT NOTE SHEET (Project)	0.00				
PROJECT NOTE SHEET (TCP)	0.00				
PROJECT NOTE SHEET (Signals)	0.00				
PLANS LEGEND & ABBREVIATIONS	0.00				
TYPICAL SECTIONS					
SUMMARY SHEET					
Main Summary	0.50	0.10	0.05	0.25	0.13
SUMMARY BOX SHEETS					
Emergency Signal at Fire & Rescue Sta 11	0.50	0.50	0.25	1.00	0.50
PLAN & PROFILE					
PAVING LAYOUT (Includes striping)					
TRAFFIC CONTROL					
SIGNING					
SIGNALIZATION (EMERGENCY SIGNAL AT HUNTSVILLE FIRE & RESCUE STATION #11)					
Signal Layout (Traffic Analysis Not Applicable)	1.00	1.00	1.00	1.00	1.00
Soils Data Sheets	2.00	0.05	0.10	0.25	0.50
UTILITY SHEETS					
DRAINAGE SECTIONS					
SOIL SHEETS					
Soil Boring Logs (Boring Logs by Garver)	12.00	0.05	0.60	0.25	3.00
Soil Profile (Soil Profile by Garver)	6.00	0.05	0.30	0.25	1.50
EROSION CONTROL					
Legend & Sequence	1.00	0.05	0.05	0.10	0.10
Phased Sheets (Phase I)	6.00	0.10	0.60	0.20	1.20
Phased Sheets (Phase II)	6.00	0.10	0.60	0.20	1.20
Phased Sheets (Phase III)	6.00	0.10	0.60	0.20	1.20
CBMPP & NOI	1.00	1.00	1.00	0.50	0.50
ROADWAY CROSS SECTIONS					
REVIEW COMMENTS					
30% Review					
Plan-in-Hand Inspection					
PS&E Inspection					
Cost Estimates					
Design Hearing			0.50		0.50
SUB-TOTAL	42.00		5.65		11.33
10% Supervision			0.57		
TOTALS	42.00		5.65		11.33

Project No. STPAA-PE11(907) and ACAA60160-ATRP(001)			
County Madison			
Description Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd			
Scope of Work Grade, Drain, Base, Pave, Bridge & Traffic Signal			
Project Length 1.45 Miles			
Consultant Garver, LLC (Geotechnical Subconsultant Terracon)			
Fee Proposal (Roadway Plans)			
PERSONNEL COST			
	Man-days	Daily Rate @ 8hrs/day	
Project Manager (10% of Eng.)	0.57	\$ 1,408.00	\$ 802.56
Engineer	5.65	\$ 984.00	\$ 5,559.60
Engineering Technician/CADD	11.33	\$ 696.00	\$ 7,885.68
Clerical	0.50	\$ 376.00	\$ 188.00
Sub-Total Labor			\$ 14,435.84
Out-of-Pocket Expenses**			\$ 654.70
Sub-Total			\$ 15,090.54
SUB-CONSULTANTS (attach man-day & fee FROM each sub-consultant; show total fee for each here)			
Terracon (Geotechnical Investigations, Foundations Report, & Materials Report)		\$	109,373.18
		\$	-
		\$	-
Subconsultant Administration Expense (5%)		\$	5,468.66
Sub-Total			\$ 114,841.84
TOTAL FEE			\$ 129,932.38

**See Grand Total Fee sheet

Project No. STPAA-PE11(907) and ACAA60160-ATRP(001)
County Madison
Description Martin Road Additional Lanes from Old Jim Williams Rd to Zierdt Rd
Scope of Work Grade, Drain, Base, Pave, Bridge & Traffic Signal
Project Length 1.45 Miles

Consultant Garver, LLC (Geotechnical Subconsultant Terracon)

Out-of-pocket Expenses (Roadway Plans)

TRAVEL COST

Mileage Cost	Trips	Miles/Trip	\$/Mile	Total
Garver Huntsville Office to ALDOT 1st Division - Guntersville	1	72	\$0.560	\$ 40.32
Garver Huntsville Office to ALDOT Central Office-Montgomery	1	400	\$0.560	\$ 224.00
Miscellaneous Project Travel	1	100	\$0.560	\$ 56.00
	0	0	\$0.560	\$ -
Total Mileage Cost				\$ 320.32

Subsistence Cost	Days	# People	\$/Day	Total
Travel allowance (6 hour trips)	2	1	\$11.25	\$ 22.50
Travel allowance (12 hour trips - meal provided by others)	0	0	\$20.00	\$ -
Travel allowance (12 hour trips)	1	1	\$30.00	\$ 30.00
Travel allowance (overnight)***	0	0	\$75.00	\$ -
				\$ -
Total Subsistence Cost				\$ 52.50
Total Travel Cost				\$ 372.82

PRINTING / REPRODUCTION COST

Type of printing/reproduction	# of Sets	Sheets/Set	Total Sheets	Cost/Sheet	Total
P.S. & E. Inspection	9	42	378	\$ 0.22	\$ 83.16
Construction Bureau Review	3	42	126	\$ 0.22	\$ 27.72
Final Plans Submittal to Office Engineer	1	42	42	\$ 0.50	\$ 21.00
	0	0	0	\$ -	\$ -
	0	0	0	\$ -	\$ -
	0	0	0	\$ -	\$ -
Total Printing/Reproduction Cost					\$ 131.88

Communication Cost (telephone, fax, etc.)	Total
	\$ 50.00

Postage Cost (overnight, stamps, etc.)	Total
	\$ 100.00

Other (provide description on next line)	Total
	\$ -

Total Out-of-pocket Expenses \$ **654.70**

Comments:

10% Mark-up has been added to all of the expenses listed above except mileage cost.

***You must have ALDOT approval for ANY overnight trips of less than 100 miles.



February 21, 2014

Garver, LLC
5125A Research Drive
Huntsville, AL 35805

Attn: Mr. Scott Leach, P.E.
P: (256) 534-5512
F: (256) 534-5544
E: scleach@GarverUSA.com

Proposal for Geotechnical Engineering Services
ALDOT Project No. STPAA-PE11(907)/ATRP Project No. ACAA60160-ATRP(001)
Martin Road Widening from Old Jim Williams Rd to E. of Zierdt Rd.
In the City of Huntsville Madison County, Alabama
Proposal No. PE5110046 (Revised 2/21/2014)

Dear Mr. Leach:

We appreciate the opportunity to submit this proposal to provide geotechnical engineering services for the above referenced project. The purpose of this study will be to evaluate the pertinent geotechnical conditions at the site and to develop geotechnical parameters, which will assist in the design and construction of pavements, bridge foundations, and other site development elements. This proposal outlines our understanding of the project and scope of services and provides an itemized fee for our services. Our hourly fee schedule is based on Terracon's FY 2012 FAR/Audit CFR Part 3 approved by ALDOT.

A. PROJECT INFORMATION

We have reviewed plans submitted for ALDOT's Plan-In-Hand Inspection and the materials report for the Zierdt Road project that you provided us for this project. These plans and materials report were used in updating this proposal. We understand that Martin Road will be widened from the existing 2 lanes to a 5 lane roadway. Curb-and-gutter and a sidewalk are planned as additional improvements. The widening is to both sides of the existing roadway with varying amounts to each side. A new bridge will be constructed to replace an existing structure at Betts Spring Branch.

The project extends from Station 91+50 to Station 189+20, which is about 1.77 miles in length. We understand the geotechnical work at the east end for Zierdt Road has already been done and the borings we had previously planned have been omitted.



Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046



The topography along the existing road is mostly level with only minor vertical relief. There will be no major changes to the horizontal or vertical alignment along the existing route. The new roadway profile will vary from slightly above up to about 5 feet above the existing elevation near the end of the project. The new bridge will be approximately 6 feet above the existing bridge elevation. Very little cut is expected on Martin Road.

The existing roadway pavement structure is to remain as part of the improved roadway and the centerline will be shifted to the north at most locations. The existing pavement is in poor condition and appears in need of a new surface, but the integrity of the pavement structure has not been evaluated and could require rehabilitation.

A 2-span approximately 70-feet long bridge over Betts Spring Branch will be replaced. The new bridge structure that is proposed is about 220 feet in length and will have three spans. Betts Spring Branch extends into the Wheeler Wildlife Refuge.

There will be no culverts or pipes significant enough to require separate geotechnical exploration. The plans indicate that the only traffic signal poles included with this project will be for the emergency signal at the City of Huntsville Fire and Rescue Station No.11. The signal pole borings at Zierdt Road intersections were performed as part of the Zierdt Road project.

We have been informed that this project will be funded by the Alabama Department of Transportation (ALDOT) through the ATRIP Program. Therefore, our geotechnical investigation will follow ALDOT procedures and guidelines. We will submit the report for review and approval by ALDOT as required per ATRIP.

Should any of the above information or assumptions be inconsistent with the planned construction, please let us know so that we may make any necessary modifications to this proposal.

B. SCOPE OF SERVICES

Terracon will perform a geotechnical investigation for the roadway widening and bridge replacement. The geotechnical exploration will include information to provide soil survey, materials report, slope study report and bridge foundation report for the roadway widening and bridge replacement. The work would be performed in accordance with ALDOT Procedure 390 and 398.

Roadway

The eastern approximate 1.1 miles of the alignment is generally open, with accessible drilling locations on or near the existing shoulders and toe of slope. However some areas of the new

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046



lanes and at the bridge location will be difficult to access due to the surrounding soft/wet soils area and other potential wet areas and may not be accessible to truck mounted drill equipment. Therefore we are budgeting for the use of an ATV mounted drill rig.

The majority of the widening locations is slightly above existing grade or would require shallow to moderate fills. We have therefore budgeted for Standard Penetration Test (SPT) borings to be spaced at approximately 300 feet per ALDOT Procedure 390.

These borings would generally be 5 to 10 feet in depth, with deeper borings required only within cut areas, deep fills or where soft soils are encountered. Approximately 60 feet of SPT borings have been included for soft soils. We anticipate 40 boring locations on Martin Road for the soils survey and materials report. Figure 1 attached hereto illustrates the approximate locations those borings are proposed.

The available boring locations will be limited by tree lines, topography, and utilities. In particular, overhead power lines will restrict the number of available boring locations on the south side of the roadway. Where the shoulders are not accessible, a single boring would be performed within the westbound lane of the existing roadway. We expect that about 8 borings will be performed within the existing roadway. Traffic control will be required to perform those borings.

At all borings performed within the existing roadway, Terracon would measure the existing pavement thickness during the drilling. The thickness of asphalt, base, and subbase if encountered would be recorded. At four locations the pavement would be cored prior to drilling to observe the pavement samples. The measured pavement thickness would be used in the Equivalent Buildup Method for comparison with new pavement designs. The core holes will be patched with a cold mix asphalt product.

Since ALDOT would utilize falling weight deflectometer (FWD) testing to determine the integrity of the in place pavement structure, we request that they perform such testing. Terracon would provide the existing pavement thickness measurements for input in the analysis and provide traffic control.

Terracon would obtain four (4) bulk soil samples for standard Proctor and resilient modulus (M_R) testing, from locations and depths to be selected during the field work. These four samples would be obtained approximately every ½ mile, per ALDOT-390 and would represent the existing subgrade soil or soil excavated from cut areas. M_R results would be used for pavement design using AASHTO's DARWin™ software.

Also, moisture content tests, sieve analysis and Atterberg limits tests would be performed on all bulk samples and selected SPT samples to assist the engineer in soil classification.

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

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Following the completion of the field and laboratory programs, separate reports would be prepared for the Soil Survey & Materials Report for the project and submitted to ALDOT for approval. The reports would be prepared in accordance with ALDOT-390 and other applicable ALDOT and AASHTO standards.

Bridge

The geotechnical exploration and foundation reports for the bridge replacement portions of this project would be performed in accordance with ALDOT Procedure 398. A 2-span approximately 70 feet long bridge over Betts Spring Branch is proposed to be replaced with a 3-span 220 feet long bridge. The foundations for the bridge project are expected to consist of driven piles or drilled shafts. We therefore propose SPT borings at each of the abutment and bent structures, per ALDOT-398. Figures 2-A and 2-B attached hereto illustrate the approximate locations the borings are proposed for each option. These borings would be extended to auger refusal depths, which we have budgeted to average 35 feet each. Due to the Karst topography features in this area, we recommend that rock coring be performed for a minimum of thirty (30) feet at each location. This is the amount that has been used to prepare the budget estimate.

For the bridge replacement, we propose twelve (12) borings. The borings will be performed along the centerline and the exterior limits of each side of the bridge at each abutment and bent structure. This work is planned to be subcontracted to a driller, Amdrill, Inc., with amphibious drilling capability. Traffic control will be required to set the drilling equipment. Permitting to access in Betts Spring Branch and costs associated with this work has not been included and we understand Garver/City of Huntsville will obtain the required permits and permission for us to perform this work.

We have prepared an alternate cost for building access to the boreholes by filling and grading a temporary access apron with rip rap or similar stone product. We understand that this is not desirable in Betts Spring Branch, but using this approach would eliminate out-of-town/specialty services.

We have also prepared an option with a reduced scope of work. The reduction in work would reduce the number of borings to five (5) with two borings at the lateral limits of each abutment and one boring at the approximate center of the bridge. The boring at the center of the bridge would extend into the creek through the bridge deck and require closure of Martin Road. This work would be restricted to a weekend. We understand Garver/City of Huntsville will be responsible for public/media notices required for this temporary road closure.

As a part of the investigation, Terracon would perform sieve analyses and hydrometer tests on selected soil samples in order to determine D_{50} values, which are used to estimate scour. Terracon would also perform chemical tests (pH, sulfates, resistivity, and chlorides) on a

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

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representative soil and water sample from the bridge area. These chemical tests are indicators of corrosion potential.

Following the completion of the field and laboratory programs, a separate foundation report would be prepared for the bridge replacement, following ALDOT-398 and other applicable ALDOT and AASHTO standards.

Traffic Signal Poles

We have also included a budget for exploration and engineering services associated with 2 emergency traffic signal pole foundations to be located near Huntsville's Fire and Rescue Station No. 11. We anticipate the poles will be 37 feet or less in height and not be cantilevered. Therefore, a boring extending to 20 feet below existing grades will be performed for each pole foundation location. A separate signal pole foundation report will be prepared following the ALDOT standards and guidelines.

Conditions/Items to be provided by Client: Items to be provided by the client include the right of entry to conduct the exploration and an awareness and/or location of any private subsurface utilities existing in the area. We will contact the local One Call Service for location of utilities in public easements. Location of private lines on the property is not part of the One Call system or Terracon scope. All private lines should be marked by others prior to commencement of drilling. We understand the City of Huntsville would be responsible for shielding the power lines on the south side of Martin Road as they would be within the arc range of the drilling equipment. We will provide at least 5 days' notice to the City prior to needing the power lines shielded for us to perform our work.

Terracon will take reasonable efforts to reduce damage to the property, such as rutting of the ground surface. However, it should also be understood that in the normal course of our work some such disturbance could occur. We have budgeted to restore the site to existing conditions. If there are any restrictions or special requirements regarding this site or exploration, these should be known prior to commencing field work.

Our fee is based on the site being accessible to our ATV-mounted drilling equipment and Garver providing survey stakeout of the boring locations. It does not include services associated location of underground utilities beyond contacting a "one-call" locate service. If such conditions are known to exist on the site, Terracon should be notified so that we may adjust our scope of services and fee, if necessary.

Also, we request that Garver provide our boring logs on plan sheets and prepare these logs according to ALDOT requirement for inclusion into the soil survey and materials reports, slope study report and bridge foundation report.

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046

Terracon

Engineering time for oversight and coordination of the project with the adjacent Martin Road and Zierdt Road projects has also been included. We will review the materials reports for the other projects and provide information that may be required to transition from one project to the other.

C. COMPENSATION

For the scope of geotechnical engineering and testing services outlined in this proposal that includes a geotechnical investigation, laboratory testing and reporting the total estimated not to exceed budget is **\$109,373.18** or **\$73,610.50** for the bridge foundation report with the reduced scope of borings option. We would invoice this project on a time and materials basis as provided on the estimated budget.

Should it be necessary to expand our services beyond those outlined in this proposal, we will notify you, then send a supplemental proposal stating the additional services and fee. We will not proceed without your authorization. We will use the Garver/Terracon Master Services Agreement.

We are available to review project drawings and specifications, attend meetings and to confer with the construction team after submittal of our report. We will obtain your specific authorization prior to providing any additional services.

Again, we greatly appreciate the opportunity to provide this proposal for our services on this very important project. Should you have any questions concerning this proposal, please contact our office at (256) 584-5461.

Sincerely

Terracon Consultants, Inc.

Rick Snow, P.E.
Senior Project Geotechnical Engineer



Jerome A. Smith, P.E.
Manager of Geotechnical Operations

Attachments: Budget Estimate
Agreement for Services
Boring Location Plans
Amdrill, Inc. Fee Schedule

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046



Cost Estimate for Geotechnical Exploration, Soil Survey, Materials Report and Slope Study For Roadway

<u>FIELD SERVICES</u>	Qty	Unit	Price	Total
Drill Rig Mobilization/demob	1	LS	577.50	577.50
Standard Penetration Test (SPT) borings	360	Ft	10.53	3,790.80
Bulk Soil Samples	4	Ea	27.51	110.04
Staff Professional 3	50	Hr	130.80	6,540.00
Pavement Coring (4 cores)	1	LS	460.00	460.00
Restore borehole conditions	1	LS	3,000.00	3,000.00
Surveying ⁽¹⁾				0.00 ⁽¹⁾
Traffic Control (Stanley Construction)	2	Dy	1,890.00	3,780.00
Subtotal Estimated Field Services				\$ 18,258.34

⁽¹⁾ We expect that the boring locations will be surveyed and marked by Garver.

<u>LABORATORY TESTING</u>	Qty	Unit	Price	Total
Natural Moisture Content	148	Ea	23.66	3,501.68
Atterberg Limits	22	Ea	94.63	2,081.86
Sieve Analysis	22	Ea	94.63	2,081.86
Standard Proctor	4	Ea	118.29	473.16
Laboratory Resilient Modulus	4	Ea	500.00	2,000.00
Topsoil Tests	6	Ea	110.00	660.00
Subtotal Estimated Laboratory Services				\$ 10,798.56

<u>ENGINEERING SERVICES</u>	Qty	Unit	Price	Total
Staff Professional 1	0	Hr	86.88	0.00
Staff Professional 2	0	Hr	96.23	0.00
Staff Professional 3	64	Hr	138.80	8,883.20
Staff Professional 4	6	Hr	152.66	915.96
Staff Professional 5	0	Hr	221.18	0.00
Staff Technician 3 (Secretarial Services + boring logs)	24	Hr	58.30	1,399.20
Subtotal Estimated Engineering Services				\$ 11,198.36
ESTIMATED BUDGET (ROADWAY)				\$40,255.26

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046

**Cost Estimate for Geotechnical Exploration and Foundation Report for Bridge**

(Using Subcontracted Amphibious Drill Rig from Amdrill, Inc. Winter Park, FL)

<u>FIELD SERVICES</u>	Qty	Unit	Price	Total
Drill Rig Mobilization/demob (Amphibious rig)	1	LS	10,500.00	10,500.00
Drill Crew Per Diem (4 man Amdrill Winter Park, FL)	8	Dy	300.00	2,400.00
Standard Penetration Test (SPT) borings	420	Ft	15.49	6,505.80
Thin Walled Tube Sampling	2	Ea	46.54	93.08
Temporary Casing for Coring	420	Ft	10.24	4,300.80
Water Truck	4	Dy	262.50	1,050.00
Rock Coring (35' to 50')	180	Ft	35.70	6,426.00
Rock Coring (50' to 65')	180	Ft	38.85	6,993.00
Rock Core Boxes	30	Ea	21.00	630.00
Rock Coring Set Up	12	Ea	100.00	1,200.00
Bulldozer Work	1	Dy	1,320.00	1,320.00
Traffic Control (Stanley Construction)	2	Dy	1,890.00	3,780.00
Surveying ⁽¹⁾				0.00 ⁽¹⁾
Staff Professional 3	64	Hr	138.80	8,883.20
Subtotal Estimated Field Services				\$ 54,081.88

⁽¹⁾ We expect that the boring locations are surveyed and staked by Garver.

<u>LABORATORY TESTING</u>	Qty	Unit	Price	Total
Natural Moisture Content	40	Ea	23.66	946.40
Atterberg Limits	2	Ea	94.63	189.26
Sieve Analysis	2	Ea	94.63	189.26
Unconfined Compression Test	4	Ea	94.63	378.52
Hydrometer Analysis	2	Ea	236.58	473.16
Undisturbed One Dimensional (consolidation test)	2	Ea	425.84	851.68
pH	2	Ea	10.00	20.00
Sulfates	2	Ea	80.00	160.00
Resistivity	2	Ea	40.00	80.00
Chlorides	2	Ea	80.00	160.00
Subtotal Estimated Laboratory Services				\$ 3,448.28

<u>ENGINEERING SERVICES</u>	Qty	Unit	Price	Total
Staff Professional 3	48	Hr	138.80	6,662.40
Staff Professional 4	4	Hr	152.66	610.64
Staff Technician 3 (Secretarial Services + boring logs)	18	Hr	58.30	1,049.40
Subtotal Estimated Engineering Services				\$ 8,322.44
ESTIMATED BUDGET (BRIDGE)				\$ 65,852.60

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046



Cost Estimate for Geotechnical Exploration and Foundation Report for Bridge
(Rip Rap Apron to Provide Access to Borings)

<u>FIELD SERVICES</u>	Qty	Unit	Price	Total
Drill Rig Mobilization/demob (ATV rig)	1	LS	577.50	577.50
Standard Penetration Test (SPT) borings	420	Ft	10.53	4,422.60
Thin Walled Tube Sampling	2	Ea	46.54	93.08
Temporary Casing for Coring	420	Ft	6.00	2,520.00
Water Truck	4	Dy	262.50	1,050.00
Rock Coring	360	Ft	33.35	12,006.00
Rock Core Boxes	30	Ea	21.00	630.00
Rock Coring Set Up	12	Ea	100.00	1,200.00
Coring/Patch Bridge Deck	1	LS	500.00	500.00
Rip Rap	500	Ton	23.00	10,350.00
Bulldozer Work	4	Dy	1,320.00	5,280.00
Traffic Control (Stanley Construction)	2	Dy	1,890.00	3,780.00
Surveying ⁽¹⁾				0.00 ⁽¹⁾
Staff Professional 3	88	Hr	138.80	12,214.40
Subtotal Estimated Field Services				\$ 54,623.58

⁽¹⁾ We expect that the boring locations are surveyed and staked by Garver.

<u>LABORATORY TESTING</u>	Qty	Unit	Price	Total
Natural Moisture Content	40	Ea	23.66	946.40
Atterberg Limits	2	Ea	94.63	189.26
Sieve Analysis	2	Ea	94.63	189.26
Unconfined Compression Test	4	Ea	94.63	378.52
Hydrometer Analysis	2	Ea	236.58	473.16
Undisturbed One Dimensional (consolidation test)	2	Ea	425.84	851.68
pH	2	Ea	10.00	20.00
Sulfates	2	Ea	80.00	160.00
Resistivity	2	Ea	40.00	80.00
Chlorides	2	Ea	80.00	160.00
Subtotal Estimated Laboratory Services				\$ 3,448.28

<u>ENGINEERING SERVICES</u>	Qty	Unit	Price	Total
Staff Professional 3	48	Hr	138.80	6,662.40
Staff Professional 4	4	Hr	152.66	610.64
Staff Technician 3 (Secretarial Service + boring logs)	18	Hr	58.30	1,049.40
Subtotal Estimated Engineering Services				\$ 8,322.44

ESTIMATED BUDGET (BRIDGE) \$ 66,394.30*

*This method will most likely require permitting from ADEM and ACOE. Time and fees for this have not been considered in Terracon's fee proposal.

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046

**Cost Estimate for Geotechnical Exploration and Foundation Report for Bridge**

(Reduced Scope to Borings at the Bridge Ends and Center)

<u>FIELD SERVICES</u>	Qty	Unit	Price	Total
Drill Rig Mobilization/demob (ATV rig)	1	LS	577.50	577.50
Standard Penetration Test (SPT) borings	175	Ft	10.53	1,842.75
Thin Walled Tube Sampling	2	Ea	46.54	93.08
Temporary Casing for Coring	175	Ft	6.00	1,050.00
Water Truck	2	Dy	262.50	525.00
Rock Coring	150	Ft	33.35	5,002.50
Rock Core Boxes	13	Ea	21.00	273.00
Rock Coring Set Up	5	Ea	100.00	500.00
Coring/Patch Bridge Deck	1	LS	500.00	500.00
Bulldozer Work	1	Dy	1,320.00	1,320.00
Traffic Control (for road closure)(Terracon/Ala Barricade)	1	LS	2,500.00	2,500.00
Surveying ⁽¹⁾				0.00 ⁽¹⁾
Staff Professional 3	42	Hr	138.80	5,829.60
Subtotal Estimated Field Services				\$ 20,013.43

⁽¹⁾ We expect that the boring locations are surveyed and staked by Garver.

<u>LABORATORY TESTING</u>	Qty	Unit	Price	Total
Natural Moisture Content	15	Ea	23.66	354.90
Atterberg Limits	2	Ea	94.63	189.26
Sieve Analysis	2	Ea	94.63	189.26
Unconfined Compression Test	3	Ea	94.63	283.89
Hydrometer Analysis	2	Ea	236.58	473.16
Undisturbed One Dimensional (consolidation test)	2	Ea	425.84	851.68
pH	2	Ea	10.00	20.00
Sulfates	2	Ea	80.00	160.00
Resistivity	2	Ea	40.00	80.00
Chlorides	2	Ea	80.00	160.00
Subtotal Estimated Laboratory Services				\$ 2,762.15

<u>ENGINEERING SERVICES</u>	Qty	Unit	Price	Total
Staff Professional 3	48	Hr	138.80	6,662.40
Staff Professional 4	4	Hr	152.66	610.64
Staff Technician 3 (Secretarial Services + boring logs)	10	Hr	58.30	583.00
Subtotal Estimated Engineering Services				\$ 7,856.04
ESTIMATED BUDGET (BRIDGE)				\$ 30,631.62

Proposal for Geotechnical Engineering Services

Martin Road Widening ■ Huntsville, Alabama

February 21, 2014 ■ Terracon Proposal PE5110046

**Cost Estimate for Geotechnical Exploration and Foundation Report for Signal Poles**

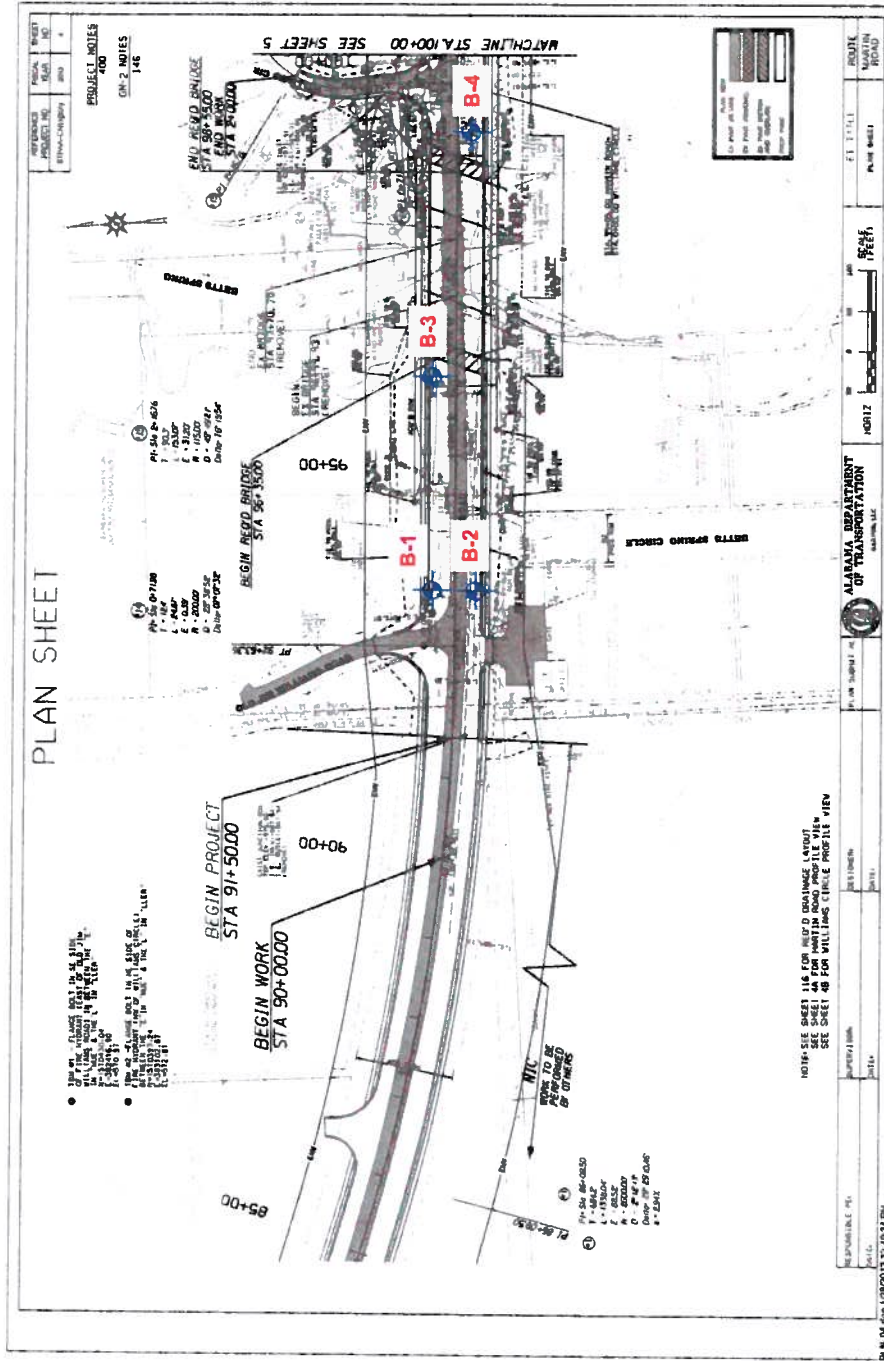
<u>FIELD SERVICES</u>	Qty	Unit	Price	Total
Drill Rig Mobilization/demob ⁽²⁾	1	LS	367.50	0.00 ⁽²⁾
Standard Penetration Test (SPT) borings	40	Ft	10.53	421.20
Surveying ⁽¹⁾				0.00 ⁽¹⁾
Staff Professional 3	4	Hr	138.80	555.20
Subtotal Estimated Field Services				\$ 976.40

⁽¹⁾ We expect that the boring locations are surveyed and staked by Garver.⁽²⁾ No fee if work is scheduled with the other roadway borings.

<u>LABORATORY TESTING</u>	Qty	Unit	Price	Total
Natural Moisture Content	10	Ea	23.66	236.60
Atterberg Limits	1	Ea	94.63	94.63
Sieve Analysis	1	Ea	94.63	94.63
Subtotal Estimated Laboratory Services				\$ 425.86

<u>ENGINEERING SERVICES</u>	Qty	Unit	Price	Total
Staff Professional 3	8	Hr	138.80	1,110.40
Staff Professional 4	1	Hr	152.66	152.66
Staff Technician 3 (Secretarial Services + boring logs)	1	Hr	58.30	58.30
Subtotal Estimated Engineering Services				\$ 1,321.36

ESTIMATED BUDGET (SIGNAL POLES)	\$ 2,723.62
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BORING LOCATION PLAN

Additional Lanes on Martin Road from Old Jim
Williams to East of Zierdt
PROJECT NO. STPAA-CN11 (901) MADISON COUNTY, ALABAMA

Terracon
Controlling Expenses & Improving Quality

26670 Success Drive, Suite Madison, Alabama 35758
PH. (256) 584-3461 FAX. (256) 584-5461

Project Manager:	RDS	Project No	E51
Drawn by	RDS	Scale:	N.T.S.
Checked by:	MFW	File Name:	E51PLAN
Approved by:	MFW	Date:	2013

Boring Locations

DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT
INTENDED FOR CONSTRUCTION PURPOSES

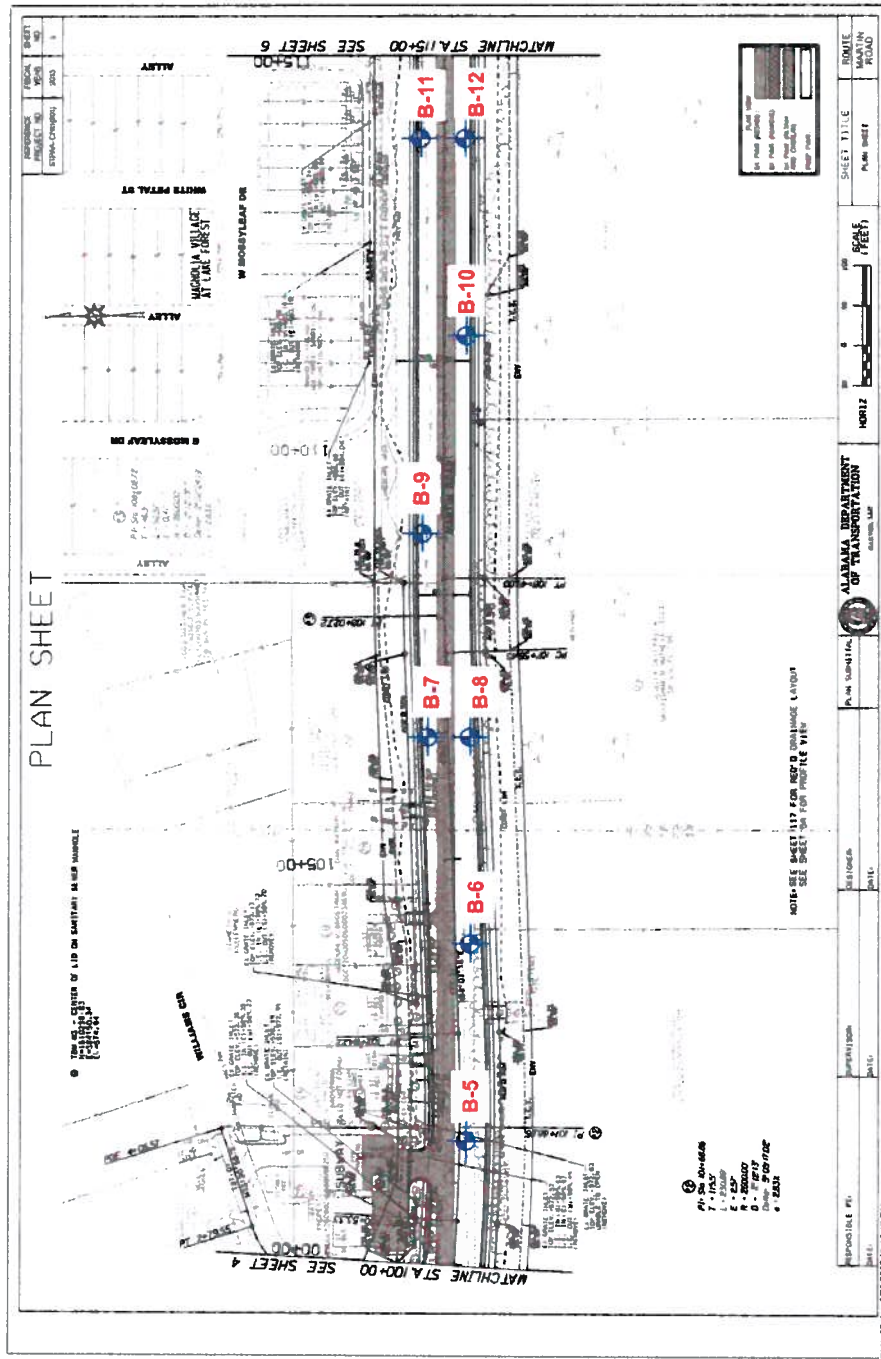


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT
INTENDED FOR CONSTRUCTION PURPOSES



Boring Locations

Project Manager:	RDS	Project No	E51
Drawn by:	RDS	Scale:	N.T.S.
Checked by:	MFW	File Name:	ESTPLAN
Approved by:	MFW	Date:	2013

Terracon
(Consulting Engineers & Architects)

26670 Succopas Drive, Suite Madison, Alabama 35756
PH: (256) 594-5461 FAX: (256) 594-5465

BORING LOCATION PLAN

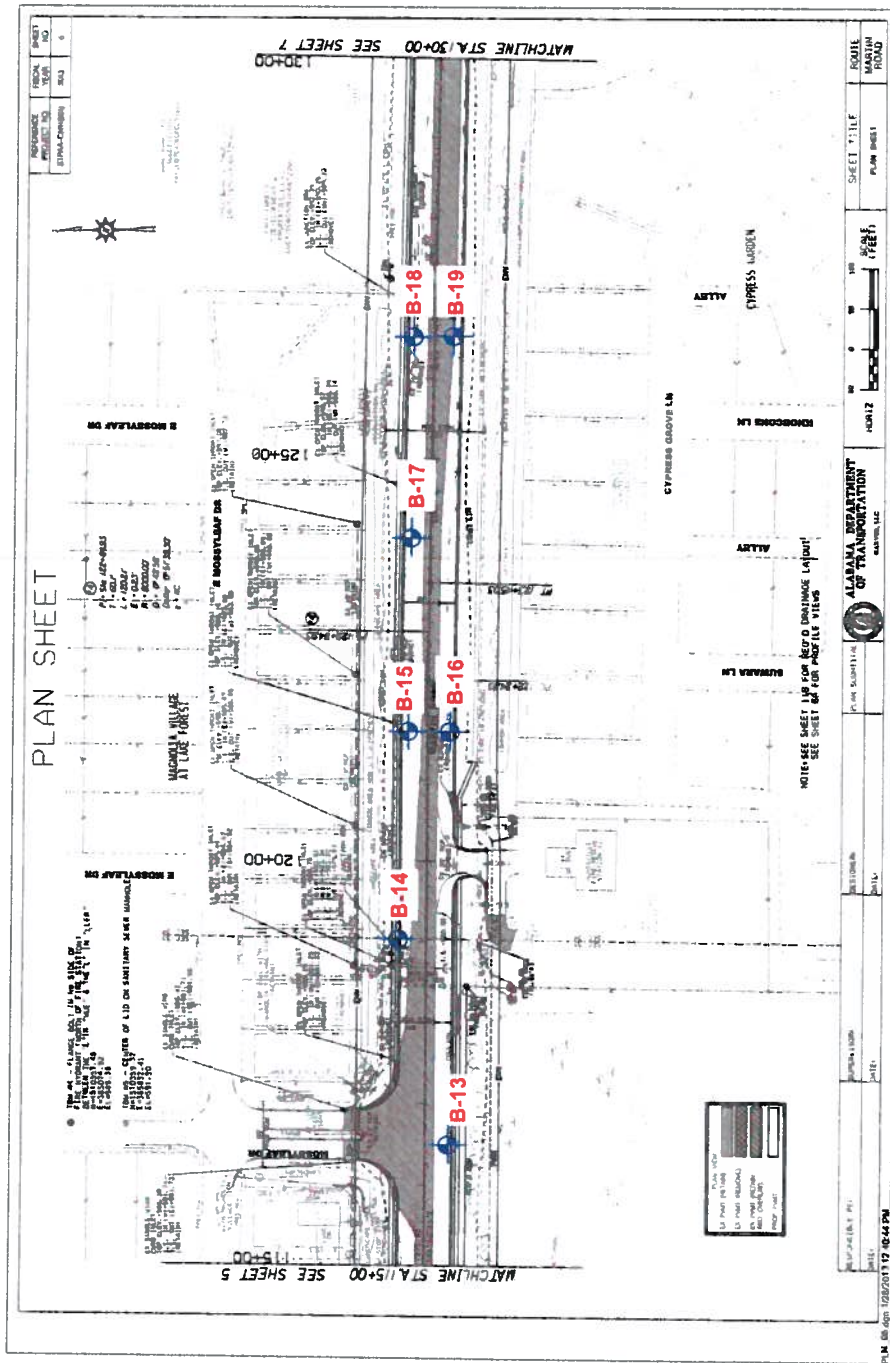
Additional Lanes on Martin Road from Old Jim Williams to East of Zierdt

Williams to East of Zierdt
PROJECT NO. STPAA-CN11 (901) MADISON COUNTY, ALABAMA

Figure

1-B

B-11
B-12



Project Manager	RDS	Project No.	ES1
Drawn by	RDS	Scale:	N.T.S.
Checked by	MFV	File Name	ES1PLAN
Approved by	MFV	Date:	2013

Project No.	ES1
Scale:	N.T.S.
File Name	ES1PLAN
Date:	2013

Project No.	ES1
Scale:	N.T.S.
File Name	ES1PLAN
Date:	2013

BORING LOCATION PLAN

Additional Lanes on Martin Road from Old Jim Williams to East of Zierdt

PROJECT NO. STPAA-CN11 (801) MADISON COUNTY, ALABAMA

Terracon

Consulting Engineers & Architects

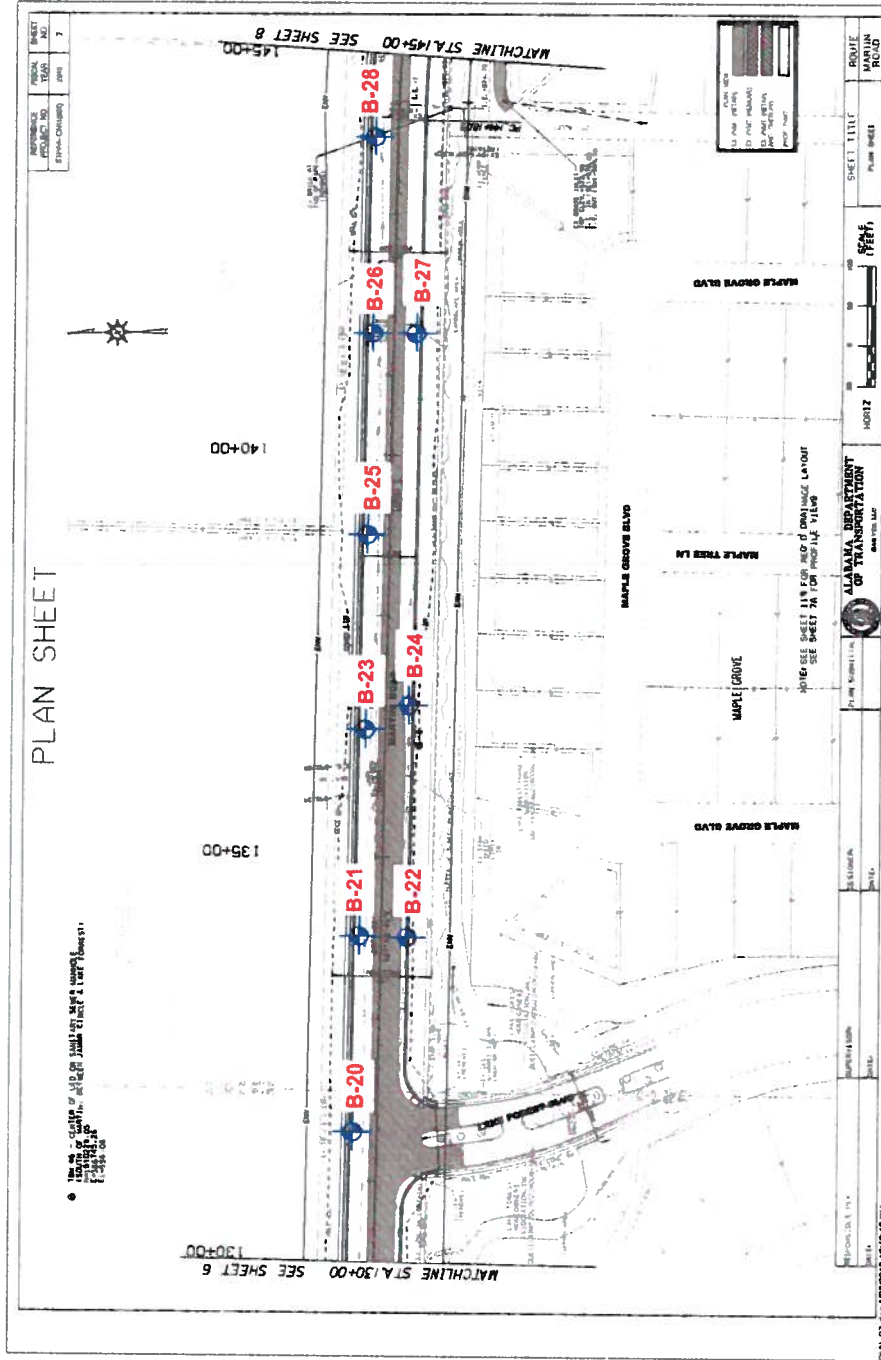
2845 Success Drive, Suite 100, Madison, Alabama 35756

PH: (205) 944-5441 FAX: (205) 944-5441

Boring Locations

DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Figure 1-C



Project Manager:	RDS	Project No.:	E51
Drawn by:	RDS	Scale:	N.T.S.
Checked by:	MFW	File Name:	E51PLAN
Approved by:	MFW	Date:	2013



Boring Locations

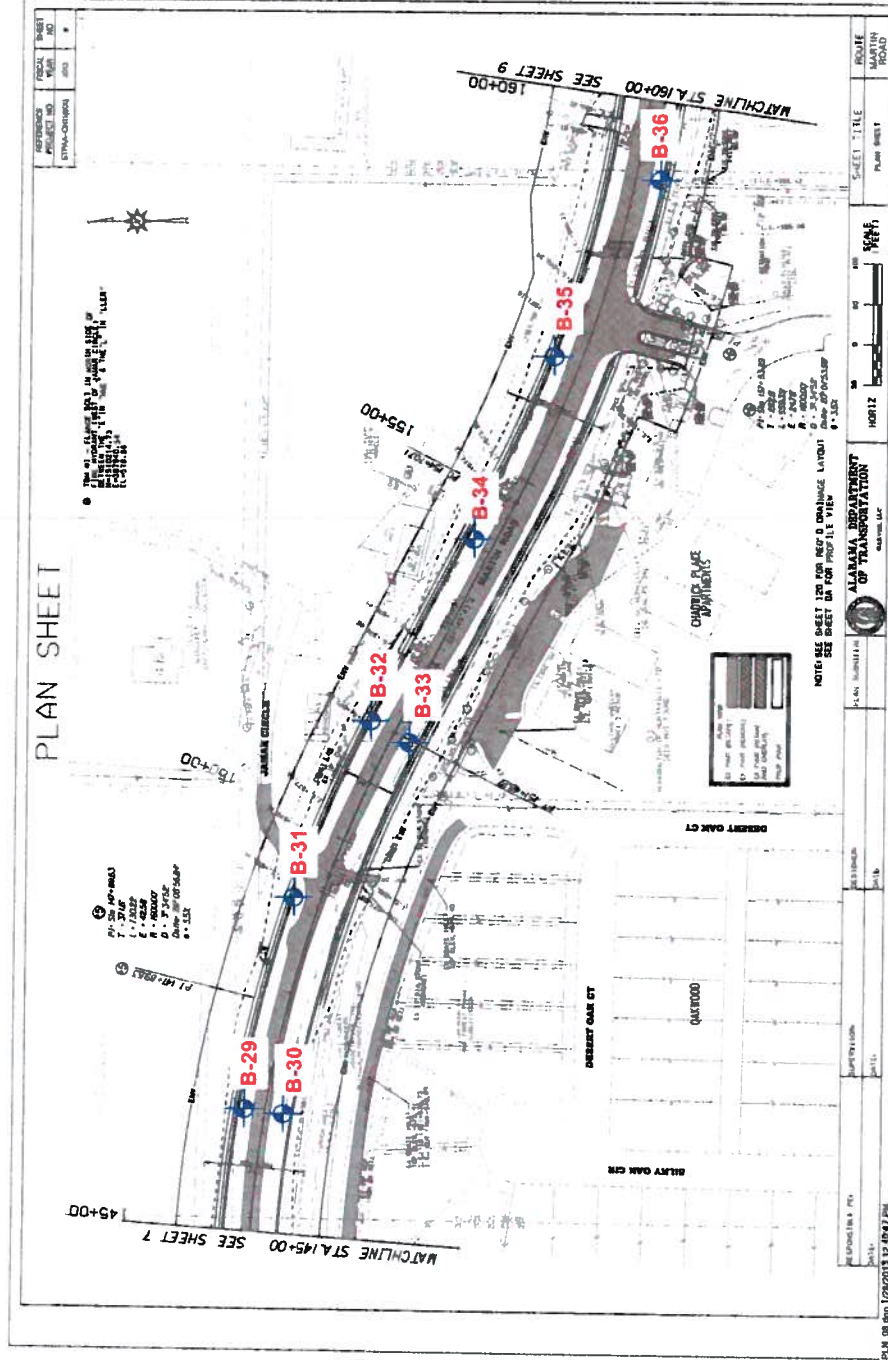
DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Terracon
Consulting Engineers & Scientists
28070 Succulent Drive, Suite 100, Madison, Alabama 37125
PH: (252) 581-5481 FAX: (252) 581-5481

BORING LOCATION PLAN
Additional Lanes on Martin Road from Old Jim Williams to East of Zierdt
PROJECT NO. STPAA-CN11 (801) MADISON COUNTY, ALABAMA

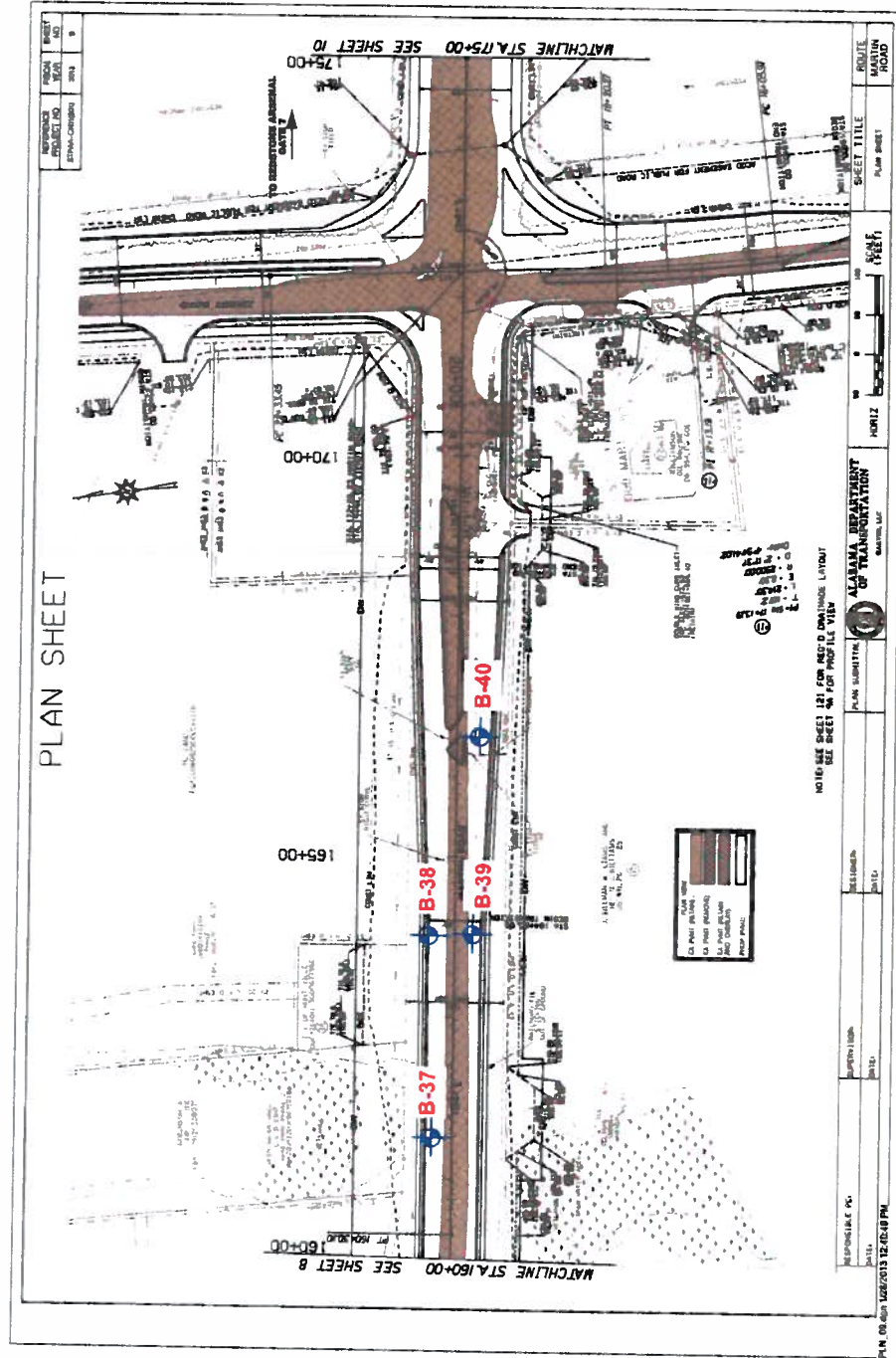
Figure
1-D

B-28



<p>Project Manager: RDS Drawn by: RDS Checked by: MPW Approved by: NEW</p>	<p>Project No. E51 Scale: N.T.S. File Name: E51PLAN Date: 2013</p>	<p>Terracon Consulting Engineers & Scientists 28020 Buckner Drive, Suite 1000, Atlanta, GA 30328 PH: (404) 584-5461 FAX: (404) 584-5461</p>
<p>Boring Locations</p>	<p>BORING LOCATION PLAN</p>	<p>Additional Lanes on Martin Road from Old Jim Williams to East of Zierdt PROJECT NO. STPAA-CN11 (801) MADISON COUNTY, ALABAMA</p>
<p>Figure</p>	<p>1-E</p>	<p></p>

THIS DRAWING IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

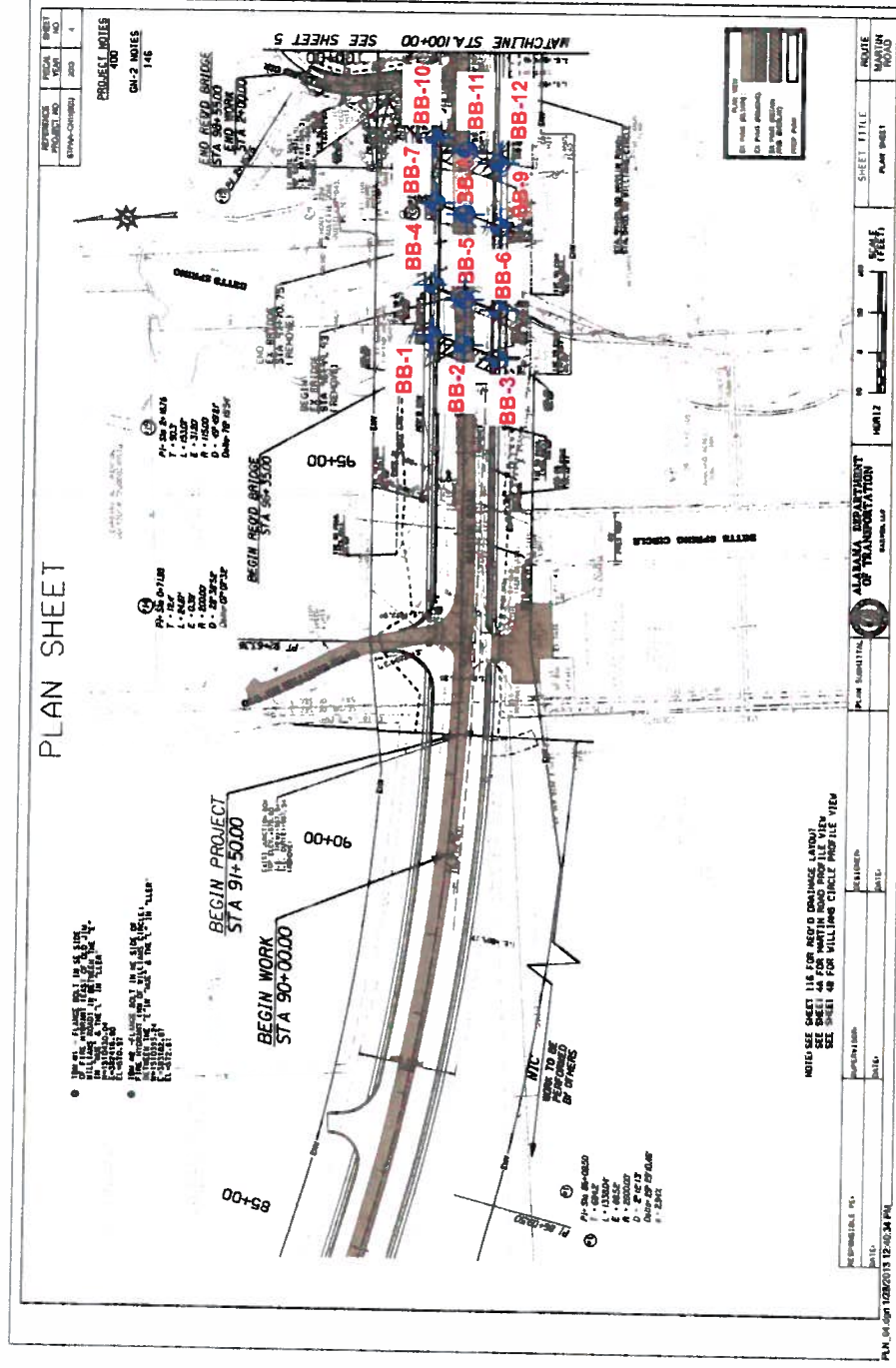
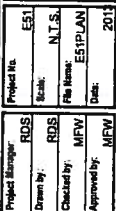
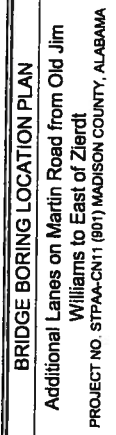
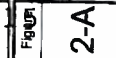


Project Manager:		RDS	ES1
Drawn by:		RDS	NTS
Checked by:		MEW	ES1/PLAN
Approved by:		MEW	2013

		Terracon Consulting Engineers & Architects 28070 Russell Drive, Suite 1000, Atlanta, GA 30328 PH: (770) 584-5401 FAX: (770) 584-5401
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BORING LOCATION PLAN		Figure
Additional Lanes on Martin Road from Old Jim Williams to East of Zierdt		1-F
PROJECT NO. STPA-CN11 (801) MADISON COUNTY, ALABAMA		

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES





BRIDGE BORING LOCATION PLAN ALTERNATE
Additional Lanes on Martin Road from Old Jim
Williams to East of Zlerdt
PROJECT NO. STPAA-CN11 (901) MADISON COUNTY, ALABAMA

Terracon
Consulting Engineers & Architects

28870 Succcess Drive, Suite M-2000, Alabama 35756
PH: (256) 584-5481 FAX: (256) 584-5481

Project Manager:	RDS	Project No:	E51
Drawn by:	RDS	Scale:	N.T.S.
Checked by	MFV	File Name	E51PLAN
Approved by	MFV	Date:	2013

AMDRILL, INC. GEOTECHNICAL & ENVIRONMENTAL DRILLING SERVICES

April 11, 2013

Terracon Inc.
1675 Lee Road
Winter Park, FL 32789

Phone: (407) 740-6110
Fax: (407) 740-6112
jsmith@nodarse.com

Attn: Jim Smith

RE: Martin Rd. at Bett Springs in Huntsville, AL

Per your request, we are submitting the following quote for the above referenced project.

Mobilization/Demobilization.....\$6,000.00*
(Amphibious Mount Drill Rig to Huntsville, AL)
***There will be an additional \$4,000.00 added to the above stated mobilization fee for crane rental.**

	<u>0 - 50'</u>	<u>50-100'</u>
SPT (Based on 5' Centers Continuous top 10)	\$12.75/ft.	\$14.75/ft.
Extra Samples	\$35.50/ea.	\$42.00/ea.
NQ Coring	\$34.00/ft.	\$37.00/ft.
4" Casing	\$9.75/ft.	
Grout.....		\$4.00/ft.
Plastic Core Boxes (Holds 10').....		\$20.00/ea.
Standby Time.....		\$198.00/hr.
Access/Clearing.....		\$198.00/hr.
Per Diem.....		\$300.00/day

Terricon will need to provide the following:

- Lane Closure to crane drill rigs to both sides of the road.
- Shield power lines when drilling on south side of road.
- Have utilities marked and depths of lines located.

Client is responsible for obtaining all permits and utility clearance.

These prices are based on the client supplying an inspector to locate borings, log borings, and clean sample spoons.

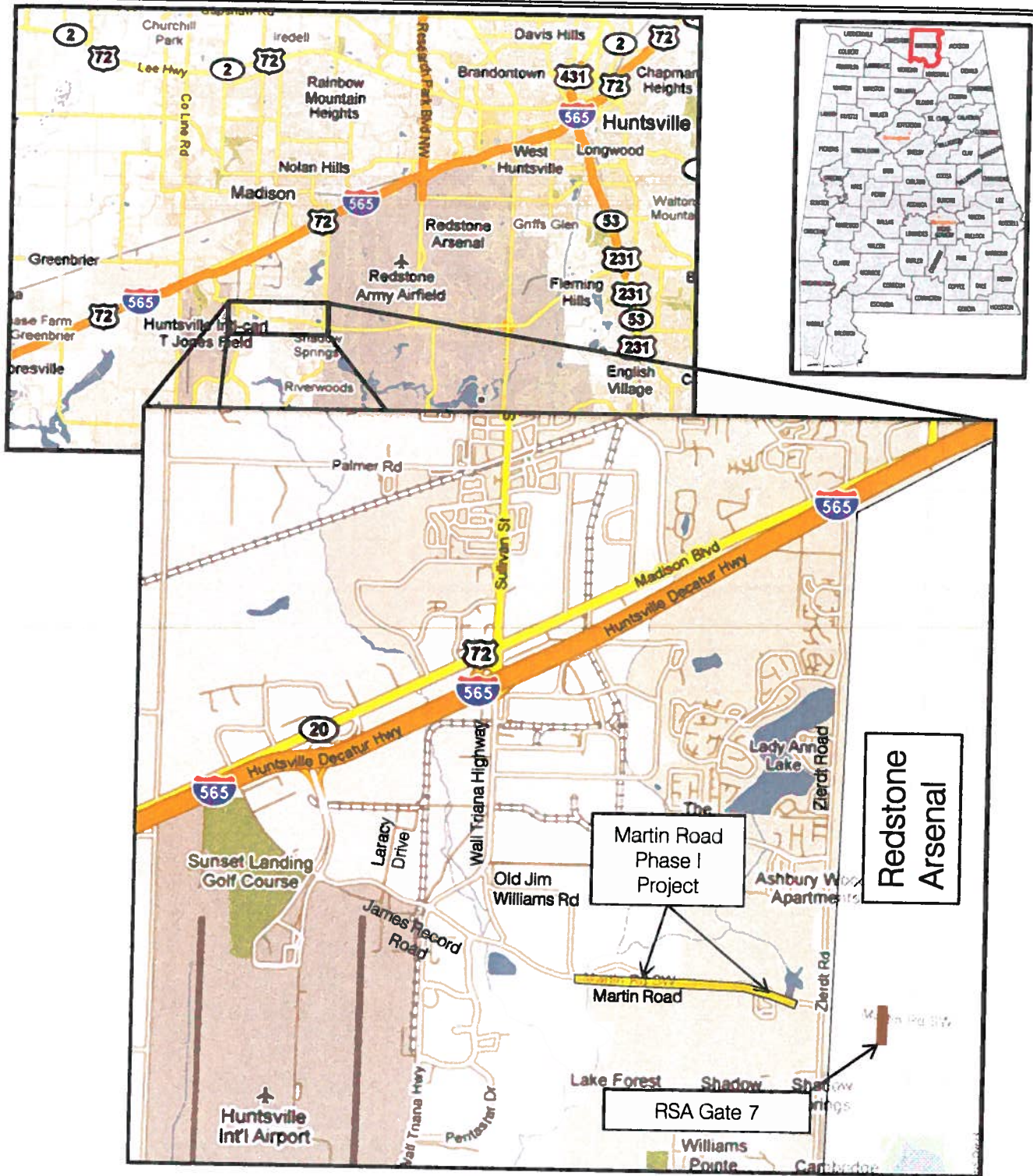
If Amdrill is required to clean sample spoons and log borings, there will be an additional \$2.00/ft added to the above stated drilling rates.

**P.O. BOX 585305 – ORLANDO, FLORIDA 32858
PHONE: (407) 298-7777 – FAX: (407) 578-5275**

Garver, LLC

Hourly Rate Schedule Valid for Duration of Project (December 31, 2015)

Classification		2014 Rates
Engineers / Architects		
	M-1	300.00
	E-6	215.00
Scott C. Leach, PE	E-5	176.00
	E-4	140.00
Patra Crenshaw, Andy Dinges, Zack Turner	E-3	123.00
	E-2	111.00
	E-1	91.00
Planners		
	P-2	132.00
	P-1	110.00
Designers		
	D-4	138.00
	D-3	116.00
	D-2	107.00
	D-1	82.00
Technicians		
	T-3	102.00
Kendall Brown, Amanda Mason	T-2	87.00
	T-1	76.00
Surveyors		
	S-6	163.00
Wade Carpenter	S-5	111.00
	S-4	90.00
	S-3	67.00
	S-2	52.00
	S-1	41.28
	1-Man Crew (Survey)	133.00
	2-Man Crew (Survey)	160.00
	3-Man Crew (Survey)	198.00
Mark Storey, Stephen Few, Randall Byrd	2-Man Crew (GPS Survey)	178.00
	3-Man Crew (GPS Survey)	215.00
Construction Observation		
	C-4	192.00
	C-3	152.00
	C-2	112.00
	C-1	83.00
Administration		
	M-1	262.00
	X-4	108.00
	X-3	83.00
	X-2	62.00
Peggy Bridgeman, Cheryl South	X-1	47.00
Intern		
	I-1	47.00



ALDOT Project No: STPAA-PE11(907) & ACAA60160-ATRP(001)
 Martin Road Additional Lanes
 in the City of Huntsville, Madison County



Figure 1

Location Map